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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,818	12/07/2001	Kei Kato	32011-176966	9362
26694	7590	05/27/2005	EXAMINER	
VENABLE LLP P.O. BOX 34385 WASHINGTON, DC 20045-9998			AVELLINO, JOSEPH E	
			ART UNIT	PAPER NUMBER

2143

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/005,818

Applicant(s)

KATO ET AL.

Examiner

Joseph E. Avellino

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-20 are presented for examination; claim 1 independent.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Carvey et al. (USPN 6,359,879) (hereinafter Carvey).

3. Referring to claim 1, Carvey discloses a datagram transmission device wherein:
A combination of attribute information types employed for transmission control is searched using a destination address of a received datagram (Figures 4-5B);
an identification key is generated using a value of the attribute information (i.e. flow identifier) which corresponds to the attribute information types of the search combination is stored in a received datagram;
a transmission control rule corresponding to said identification key is selected from a transmission control rule list (i.e. forwarding table);
and transmission of said datagram is controlled in accordance with the selected transmission control rule (i.e. the datagram is forwarded on the selected trunk) (col. 5, lines 30-50).

4. Referring to claim 2, Carvey discloses an attribute information searcher that decides attribute information types employed for transmission control using the destination address of the received datagram (col. 5, lines 30-50);

an identification key generator that reads from the datagram said attribute information corresponding to the search result of said searcher and generates said identification key which contains the destination address and the value of said attribute information that has been read (i.e. the flow identifier is used to generate the identification key) (col. 5, lines 30-50);

a transmission control selector that selects on a transmission control rule (i.e. forwarding table entry) using said identification key (i.e. hashed flow identifier) generated by said identification key generator (col. 5, lines 30-50); and

transmission controller that controls transmission in accordance with a transmission control rule selected by said transmission controller (selection of the specific trunk) (col. 5, lines 30-50).

5. Referring to claim 3, Carvey discloses an information table that stores information indicating combinations of said attribute information (i.e. longest matching prefix of the packet destination) (col. 5, line 50 to col. 6, line 17); and

address searching means that searches the indexes of said information table using said destination address (col. 5, lines 30-50).

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6. Referring to claim 4, Carvey discloses the identification key generation means generates said identification key including an index (i.e. hash of the flow identifier) obtained by the searching of said address searching means (col. 5, line 30 to col. 6, line 17).

7. Referring to claim 5, Carvey discloses the identification key is generated using a compressed value of the value of said attribute information of one or more types (i.e. hashed using a bitwise exclusive-or operation) (col. 5, lines 39-50).

8. Referring to claim 6, Carvey discloses an action table that stores a plurality of types of execution content of said transmission control (i.e. forwarding tables) (col. 5, lines 50-67);

hash searching means that searches the indexes of said action table by hash searching using said identification key (col. 5, lines 30-67).

9. Referring to claim 7, Carvey discloses said information table stores destination addresses execution information (i.e. forwarding tables) that indicates the execution content when said transmission control is only transmission (i.e. regardless of how many transmissions have been processed, the system will look to find the line with the longest prefix in order to correctly forward the packet upon the most appropriate line) (col. 5, lines 50-60); and

said transmission control execution means executes said transmission when said destination address execution information has been input (i.e. once destination forwarding table has been consulted, the trunk line corresponding to the output port is forwarded (col. 5, lines 50-60; Figures 6-7).

10. Referring to claim 8, Carvey discloses the attribute information belongs to the fourth layer or above (of the OSI model, the fourth layer is the "transport" layer, which controls transfer between sessions and is responsible for end-to-end error recovery, such as TCP and flow control in ATM, Carvey discloses using the flow identifier of the packet) (col. 5, lines 30-50).

11. Referring to claim 9, Carvey discloses the attribute information searching means searches combinations of attributed information belonging to the second layer of the protocol and destination address (col. 6, lines 1-20).

12. Referring to claims 10 and 18, Carvey discloses the information belonging to the second layer of the protocol is a virtual channel identifier of the asynchronous transfer mode (i.e. flow identifier) (col. 6, lines 1-10)

13. Claims 11-17 are rejected for similar reasons as stated above. Furthermore the source and destination addresses are converted into index values (col. 6, lines 1-5).

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14. Referring to claims 19 and 20, Carvey discloses the device is an Internet protocol router and switch (a router is inherently a switch) (Figure 2, ref. 1-3).

Response to Arguments

15. Applicant's arguments filed April 25, 2005 have been fully considered but they are not persuasive.

16. Applicant argues, in substance, that (1) Carvey does not disclose or suggest a combination of attribute information types employed for transmission control is searched using a destination address of a received datagram.

17. As to point (1) the Office respectfully disagrees. Applicant's attention is directed to col. 4, lines 32-45 where it is taught by Carvey that five fields in the packet are utilized to create a flow identifier (packet type, source IP address, source IP port, destination IP address, destination IP port). This Flow ID is hashed in order to search a hash table of flow IDs in order to find the route for the flow. Carvey clearly discloses a combination of attribute information types employed for transmission control is searched using a destination address of a received datagram. By this rationale, the rejection is maintained.

Conclusion

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

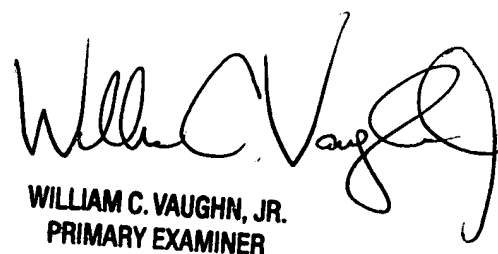
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JEA
May 16, 2005



WILLIAM C. VAUGHN, JR.
PRIMARY EXAMINER